

WHAT IS CLAIMED IS:

1. A system for facilitating negotiation of a standard for inter-enterprise collaboration between trading partners, comprising:

5 a set of one or more meta-model elements each capable of being negotiated by two or more enterprises and incorporated into a negotiated meta-model that describes an agreement between the enterprises as to collaborations between the enterprises, each meta-model element in the set describing a portion of a potential standard for collaboration between enterprises;

a meta-model negotiation service operable to:

10 receive an indication that two or more enterprises wish to negotiate a standard for collaborations between the enterprises;

provide access to the set of meta-model elements;

15 receive selections of one or more of the meta-model elements for negotiation and incorporation into a negotiated meta-model, the negotiated meta-model describing an agreement between the enterprises as to collaborations between the enterprises;

facilitate negotiation of the selected meta-model elements;

incorporate negotiated meta-model elements into the negotiated meta-model for collaborations between the enterprises; and

20 communicate the negotiated meta-model to the enterprises to enable collaborations between the enterprises according to the standard for collaborations reflected in the negotiated meta-model.

2. The system of Claim 1, wherein the meta-model negotiation service is  
25 operable to communicate the negotiated meta-model to collaboration software of the enterprises, the collaboration software being operable to understand and collaborate according to the negotiated meta-model substantially automatically and substantially independent of modification to the collaboration software subsequent to negotiation of the meta-model.

3. The system of Claim 1, wherein the agreement associated with the negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized for particular needs of the enterprises.

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4. The system of Claim 1, wherein the meta-model elements within the set comprise one or more of the following:

role types;

dimensions each comprising a supply chain element;

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dimensionalities each comprising a combination of supply chain elements;

access of particular role types to particular dimensionalities;

collaborative transaction types relative to particular dimensionalities;

shared operations visible to the at least two enterprises; and

temporal structures of collaborative transactions.

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5. The system of Claim 4, wherein a meta-model element specifying a collaborative transaction type relative to a particular dimensionality comprises one or more of the following:

structure of the transaction;

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data elements associated with the transaction;

a state model describing a life cycle of the transaction;

access that a role type has to data elements of the transaction relative to a state of the transaction;

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actions that a role type can execute on the transaction relative to a state of the transaction; and

whether the transaction is a system of record or whether synchronization must occur with another system of record.

6. The system of Claim 1, wherein the set of meta-model elements is specified in a template.

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7. The system of Claim 1, wherein the meta-model negotiation service comprises a joint business planning network service (JBPNS).

5 8. The system of Claim 1, wherein the meta-model negotiation service is associated with a network service provider through which the enterprises can negotiate the meta-model elements.

9. The system of Claim 1, wherein the negotiated meta-model is represented using extensible markup language (XML).

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10. The system of Claim 1, wherein a collaboration comprises execution of a business process or transaction according to the negotiated meta-model.

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11. A method for facilitating negotiation of a standard for inter-enterprise collaboration between trading partners, the method performed using one or more computers, the method comprising:

receiving an indication that two or more enterprises wish to negotiate a  
5 standard for collaborations between the enterprises;

providing access to a set of one or more meta-model elements, each  
meta-model element in the set capable of being negotiated by the enterprises and  
incorporated into a negotiated meta-model that describes an agreement between the  
enterprises as to collaborations between the enterprises, each meta-model element in  
10 the set describing a portion of a potential standard for collaboration between  
enterprises;

receiving selections of one or more of the meta-model elements for  
negotiation and incorporation into a negotiated meta-model, the negotiated  
meta-model describing an agreement between the enterprises as to collaborations  
15 between the enterprises;

facilitating negotiation of the selected meta-model elements;

incorporating negotiated meta-model elements into the negotiated meta-model  
for collaborations between the enterprises; and

communicating the negotiated meta-model to the enterprises to enable  
20 collaborations between the enterprises according to the standard for collaborations  
reflected in the negotiated meta-model.

12. The method of Claim 11, further comprising communicating the  
negotiated meta-model to collaboration software of the enterprises, the collaboration  
25 software being operable to understand and collaborate according to the negotiated  
meta-model substantially automatically and substantially independent of modification  
to the collaboration software subsequent to negotiation of the meta-model.

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13. The method of Claim 11, wherein the agreement associated with the negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized for particular needs of the enterprises.

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14. The method of Claim 11, wherein the meta-model elements within the set comprise one or more of the following:

- role types;
- dimensions each comprising a supply chain element;
- 10 dimensionalities each comprising a combination of supply chain elements;
- access of particular role types to particular dimensionalities;
- collaborative transaction types relative to particular dimensionalities;
- shared operations visible to the at least two enterprises; and
- temporal structures of collaborative transactions.

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15. The method of Claim 14, wherein a meta-model element specifying a collaborative transaction type relative to a particular dimensionality comprises one or more of the following:

- structure of the transaction;
- 20 data elements associated with the transaction;
- a state model describing a life cycle of the transaction;
- access that a role type has to data elements of the transaction relative to a state of the transaction;
- actions that a role type can execute on the transaction relative to a state of the
- 25 transaction; and
- whether the transaction is a system of record or whether synchronization must occur with another system of record.

16. The method of Claim 11, wherein the set of meta-model elements is  
30 specified in a template.

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17. The method of Claim 11, wherein the meta-model negotiation service comprises a joint business planning network service (JBPNS).

18. The method of Claim 11, wherein the meta-model negotiation service  
5 is associated with a network service provider through which the enterprises can negotiate the meta-model elements.

19. The method of Claim 11, wherein the negotiated meta-model is represented using extensible markup language (XML).

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20. The method of Claim 11, wherein a collaboration comprises execution of a business process or transaction according to the negotiated meta-model.

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21. Software for facilitating negotiation of a standard for inter-enterprise collaboration between trading partners, the software embodied in computer-readable media and when executed operable to:

5 receive an indication that two or more enterprises wish to negotiate a standard for collaborations between the enterprises;

provide access to a set of one or more meta-model elements, each meta-model element in the set capable of being negotiated by the enterprises and incorporated into a negotiated meta-model that describes an agreement between the enterprises as to collaborations between the enterprises, each meta-model element in the set describing  
10 a portion of a potential standard for collaboration between enterprises;

receive selections of one or more of the meta-model elements for negotiation and incorporation into a negotiated meta-model, the negotiated meta-model describing an agreement between the enterprises as to collaborations between the enterprises;

facilitate negotiation of the selected meta-model elements;  
15 incorporate negotiated meta-model elements into the negotiated meta-model for collaborations between the enterprises; and

communicate the negotiated meta-model to the enterprises to enable collaborations between the enterprises according to the standard for collaborations reflected in the negotiated meta-model.

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22. The software of Claim 21, further operable to communicate the negotiated meta-model to collaboration software of the enterprises, the collaboration software being operable to understand and collaborate according to the negotiated meta-model substantially automatically and substantially independent of modification  
25 to the collaboration software subsequent to negotiation of the meta-model.

23. The software of Claim 21, wherein the agreement associated with the negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized  
30 for particular needs of the enterprises.

24. The software of Claim 21, wherein the meta-model elements within the set comprise one or more of the following:

role types;  
dimensions each comprising a supply chain element;  
5 dimensionalities each comprising a combination of supply chain elements;  
access of particular role types to particular dimensionalities;  
collaborative transaction types relative to particular dimensionalities;  
shared operations visible to the at least two enterprises; and  
temporal structures of collaborative transactions.

25. The software of Claim 24, wherein a meta-model element specifying a collaborative transaction type relative to a particular dimensionality comprises one or more of the following:

structure of the transaction;  
15 data elements associated with the transaction;  
a state model describing a life cycle of the transaction;  
access that a role type has to data elements of the transaction relative to a state of the transaction;  
actions that a role type can execute on the transaction relative to a state of the  
20 transaction; and  
whether the transaction is a system of record or whether synchronization must occur with another system of record.

26. The software of Claim 21, wherein the set of meta-model elements is  
25 specified in a template.

27. The software of Claim 21, wherein the meta-model negotiation service comprises a joint business planning network service (JBPNS).

28. The software of Claim 21, wherein the meta-model negotiation service is associated with a network service provider through which the enterprises can negotiate the meta-model elements.

5 29. The software of Claim 21, wherein the negotiated meta-model is represented using extensible markup language (XML).

10 30. The software of Claim 21, wherein a collaboration comprises execution of a business process or transaction according to the negotiated meta-model.

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31. A system for facilitating negotiation of a standard for inter-enterprise collaboration between trading partners, comprising:

means for receiving an indication that two or more enterprises wish to negotiate a standard for collaborations between the enterprises;

5 means for providing access to a set of one or more meta-model elements, each meta-model element in the set capable of being negotiated by the enterprises and incorporated into a negotiated meta-model that describes an agreement between the enterprises as to collaborations between the enterprises, each meta-model element in the set describing a portion of a potential standard for collaboration between  
10 enterprises;

means for receiving selections of one or more of the meta-model elements for negotiation and incorporation into a negotiated meta-model, the negotiated meta-model describing an agreement between the enterprises as to collaborations between the enterprises;

15 means for facilitating negotiation of the selected meta-model elements;

means for incorporating negotiated meta-model elements into the negotiated meta-model for collaborations between the enterprises; and

means for communicating the negotiated meta-model to the enterprises to enable collaborations between the enterprises according to the standard for  
20 collaborations reflected in the negotiated meta-model.

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32. A system for facilitating negotiation of a private standard for inter-enterprise collaboration between trading partners, the system being associated with a network service provider and comprising:

5 a set of one or more meta-model elements each capable of being negotiated by two or more enterprises and incorporated into a customized negotiated meta-model that describes an agreement between the enterprises as to collaborations between the enterprises, each meta-model element in the set describing a portion of a potential private standard for collaboration between enterprises;

10 a meta-model negotiation service operable to:  
receive an indication that two or more enterprises wish to negotiate a private standard for collaborations between the enterprises;

15 provide access to the set of meta-model elements;  
receive selections of one or more of the meta-model elements for negotiation and incorporation into a customized negotiated meta-model, the negotiated meta-model describing an agreement between the enterprises as to collaborations between the enterprises;

20 facilitate negotiation of the selected meta-model elements;  
incorporate negotiated meta-model elements into the negotiated meta-model for collaborations between the enterprises, the negotiated meta-model being customized for particular needs of the enterprises; and

25 communicate the customized negotiated meta-model to collaboration software of the enterprises to enable collaborations between the enterprises according to the private standard for collaborations reflected in the customized negotiated meta-model, that collaboration software operable to understand and collaborate according to the customized negotiated meta-model substantially automatically and substantially independent of modification to the collaboration software subsequent to negotiation of the customized negotiated meta-model.

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33. Collaboration software associated with an enterprise, the collaboration software being embodied in computer-readable media and when executed operable to:

5 receive a negotiated meta-model from a meta-model negotiation service, the negotiated meta-model incorporating a plurality of negotiated meta-model elements selected from a stored set of meta-model elements each capable of being negotiated by two or more enterprises, each meta-model element in the set describing a portion of a potential standard for collaboration between enterprises, the negotiated meta-model describing an agreement as to collaborations between the associated enterprise and one or more other enterprises, the negotiated meta-model having been  
10 negotiated by the associated enterprise and the one or more other enterprises using the meta-model negotiation service;

understand semantics of the negotiated meta-model substantially independent of modification of the collaboration software subsequent to negotiation of the meta-model; and

15 substantially automatically collaborate with the one or more other enterprises according to the standard for collaborations reflected in the negotiated meta-model received at the collaboration software.

34. The software of Claim 33, wherein the agreement associated with the  
20 negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized for particular needs of the one or more enterprises.

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35. The software of Claim 33, wherein the meta-model elements within the negotiated meta-model comprise one or more of the following:

- one or more role types;
- one or more dimensions each comprising a supply chain element;
- 5 one or more dimensionalities each comprising a combination of supply chain elements;
- access of one or more role types to one or more particular dimensionalities;
- one or more collaborative transaction types relative to one or more particular dimensionalities;
- 10 one or more shared operations visible to the enterprises; and
- one or more temporal structures of collaborative transactions to be executed according to the negotiated meta-model.

36. The software of Claim 35, wherein a meta-model element specifying a collaborative transaction type relative to a particular dimensionality comprises one or more of the following:

- structure of the transaction;
- data elements associated with the transaction;
- a state model describing a life cycle of the transaction;
- 20 access that a role type has to data elements of the transaction relative to a state of the transaction;
- actions that a role type can execute on the transaction relative to a state of the transaction; and
- whether the transaction is a system of record or whether synchronization must
- 25 occur with another system of record.

37. The software of Claim 33, wherein the received negotiated meta-model is represented using extensible markup language (XML).

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38. The software of Claim 33, wherein a collaboration according to the standard for collaborations reflected in the negotiated meta-model comprises executing a business process or business transaction according to the negotiated meta-model.

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39. A method performed using collaboration software associated with an enterprise, comprising:

receiving a negotiated meta-model from a meta-model negotiation service, the negotiated meta-model incorporating a plurality of negotiated meta-model elements  
5 selected from a stored set of meta-model elements each capable of being negotiated by two or more enterprises, each meta-model element in the set describing a portion of a potential standard for collaboration between enterprises, the negotiated meta-model describing an agreement as to collaborations between the associated enterprise and one or more other enterprises, the negotiated meta-model having been  
10 negotiated by the associated enterprise and the one or more other enterprises using the meta-model negotiation service;

understanding semantics of the negotiated meta-model substantially independent of modification of the collaboration software subsequent to negotiation of the meta-model; and

15 substantially automatically collaborating with the one or more other enterprises according to the standard for collaborations reflected in the negotiated meta-model received at the collaboration software.

40. The method of Claim 39, wherein the agreement associated with the  
20 negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized for particular needs of the one or more enterprises.

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41. The method of Claim 39, wherein the meta-model elements within the negotiated meta-model comprise one or more of the following:

- one or more role types;
- one or more dimensions each comprising a supply chain element;
- 5 one or more dimensionalities each comprising a combination of supply chain elements;
- access of one or more role types to one or more particular dimensionalities;
- one or more collaborative transaction types relative to one or more particular dimensionalities;
- 10 one or more shared operations visible to the enterprises; and
- one or more temporal structures of collaborative transactions to be executed according to the negotiated meta-model.

42. The method of Claim 41, wherein a meta-model element specifying a collaborative transaction type relative to a particular dimensionality comprises one or more of the following:

- structure of the transaction;
- data elements associated with the transaction;
- a state model describing a life cycle of the transaction;
- 20 access that a role type has to data elements of the transaction relative to a state of the transaction;
- actions that a role type can execute on the transaction relative to a state of the transaction; and
- whether the transaction is a system of record or whether synchronization must
- 25 occur with another system of record.

43. The method of Claim 39, wherein the received negotiated meta-model is represented using extensible markup language (XML).

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44. The method of Claim 39, wherein collaborating according to the standard for collaborations reflected in the negotiated meta-model comprises executing a business process or business transaction according to the negotiated meta-model.

45. A negotiated meta-model enabling collaboration between two or more enterprises, the negotiated meta-model:

incorporating a plurality of negotiated meta-model elements selected from a stored set of meta-model elements each capable of being negotiated by two or more enterprises, each meta-model element in the set describing a portion of a potential standard for collaboration between enterprises;

describing an agreement as to collaborations between two or more enterprises;

having been negotiated by the two or more enterprises using a meta-model negotiation service associated with a network service provider; and

comprising semantics capable of being understood by collaboration software associated with each of the two or more enterprises substantially independent of any modification of the collaboration software subsequent to negotiation of the meta-model, such that the collaboration software of the two or more enterprises is operable to substantially automatically collaborate according to the standard for collaborations reflected in the negotiated meta-model.

46. The meta-model of Claim 45, wherein the agreement associated with the negotiated meta-model is machine-actionable at the collaboration software of the enterprises and reflects a private, differentiated standard for collaboration customized for particular needs of the one or more enterprises.

47. The meta-model of Claim 45, wherein the meta-model elements within the negotiated meta-model comprise one or more of the following:

- one or more role types;
- one or more dimensions each comprising a supply chain element;
- 5 one or more dimensionalities each comprising a combination of supply chain elements;
- access of one or more role types to one or more particular dimensionalities;
- one or more collaborative transaction types relative to one or more particular dimensionalities;
- 10 one or more shared operations visible to the enterprises; and
- one or more temporal structures of collaborative transactions to be executed according to the negotiated meta-model.

48. The meta-model of Claim 47, wherein meta-model elements specifying a collaborative transaction type relative to a particular dimensionality each comprise one or more of the following:

- a structure of the transaction;
- data elements associated with the transaction;
- a state model describing a life cycle of the transaction;
- 20 access that a role type has to data elements of the transaction relative to a state of the transaction;
- actions that a role type can execute on the transaction relative to a state of the transaction; and
- whether the transaction is a system of record or whether synchronization must
- 25 occur with another system of record.

49. The meta-model of Claim 45, wherein the negotiated meta-model is represented using extensible markup language (XML).

50. The meta-model of Claim 45, wherein a collaboration according to the negotiated meta-model comprises executing a business process or business transaction according to the negotiated meta-model.

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